CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 97-065

AMENDMENT OF FINAL SITE CLEANUP REQUIREMENTS (ORDER NO. 94-064) FOR:

UNITED TECHNOLOGIES CORPORATION
(CHEMICAL SYSTEMS DIVISION - COYOTE CENTER)
OPERABLE UNIT 1

for the property located at

600 METCALF ROAD
SAN JOSE
SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter the Board), finds that:

1. **Regional Board Orders:** The Board adopted final site cleanup requirements for this site on May 18, 1994 (Order No. 94-064). This order contains cleanup standards for soil and groundwater in Operable Unit 1 (OU1), which consists of the most developed portion of the site, namely Shingle Valley and Mixer Valley. The Board adopted two amendments to these site cleanup requirements in 1995. Order No. 95-112, adopted on May 24, 1995, modifies the soil cleanup standard for PCBs. Order No. 95-194, adopted on September 13, 1995, incorporates water reclamation requirements for OU1 into the site cleanup requirements.

2. **Reason for Amendment:** This amendment would modify the groundwater cleanup standard for total petroleum hydrocarbons as diesel (TPHd). TPHd was released at Station 0710 in Upper Shingle Valley, impacting soil and groundwater near Shingle Creek. United Technologies Corporation (UTC) has removed TPHd-contaminated soils and has implemented a bio-venting system to address TPHd in the smear zone and in groundwater. UTC recently proposed a dike and sump-pump system to control seepage of TPHd-contaminated groundwater to Shingle Creek.

   Order No. 96-064 establishes a groundwater cleanup standard of 100 ug/l for TPHd (Table 4) and prohibits the discharge of contaminated groundwater into creeks at

concentrations above cleanup standards (prohibition A.4). The order allows UTC to propose a site-specific groundwater cleanup standard for TPHd (footnote to Table 4).

UTC proposes to modify the groundwater cleanup standard for TPHd as follows:

Category	Cleanup standard	Where in SCR
Groundwater beyond 75' buffer zone	1,000 ug/l	Table 4
Groundwater within 75' buffer zone	200 ug/l	Table 4

This modification would have the effect of prohibiting TPHd concentrations over 200 ug/l in surface waters, pursuant to prohibition A.4. The buffer zone includes the area within 75 feet of Shingle Creek.

a. A less stringent cleanup standard of 1,000 ug/l outside the buffer zone is protective of human health, based on best professional judgement and recent developments in TPH pollution oversight (see Lawrence Livermore National Laboratory, Recommendations to Improve the Cleanup Process for California's Leaking Underground Fuel Tanks, 1995 and ASTM Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites, 1995). TPHd will decline over time due to natural attenuation, and domestic use of shallow groundwater in this area is unlikely, particularly in the short term.

b. A more stringent cleanup standard of 200 ug/l within the buffer zone is necessary to protect aquatic life in Shingle Creek. This level is based on best professional judgement and is consistent with cleanup standards established by the Board at San Francisco International Airport (site cleanup requirements in Order No. 95-136). There, a standard of 200 ug/l for the sum of TPHd and TPHg was set based on bioassay results showing this level was protective of freshwater species.

3. **CEQA**: This action is an order to enforce the laws and regulations administered by the Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15321 of the Resources Agency Guidelines.

4. **Notification**: The Board has notified the discharger and all interested agencies and persons of its intent under California Water Code Section 13304 to amend site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.

5. **Public Hearing**: The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that Order No. 94-064 shall be amended as follows:

A. Table 4 is modified as follows:

Table 4
Groundwater Cleanup Standards (ug/l)

Chemical	Cleanup Standards	Weight of Evidence[1]	Basis
Acetone	3,500	D	DWEL[2]
Methyl ethyl ketone (MEK) aka 2-butanone	1,750	D	DWEL[2]
Benzene	1	A	CALIF. 1o MCL
Chlorobenzene	30	D	CALIF. 1o MCL
Chloroform	100	B2	EPA 1o MCL
Carbon tetrachloride	0.5	B2	CALIF. 1o MCL
1,1-Dichloroethene (DCE)	6	C	CALIF. 1o MCL
1,1-Dichlorethane (DCA)	5	-	CALIF. 1o MCL
cis-1,2-Dichloroethene	6	D	EPA 1o MCL
1,2-Dichloroethane	0.5	B2	CALIF. 1o MCL
Ethylbenzene	680	D	CALIF. 1o MCL
Freon 113	1,200	-	CALIF. 1o MCL
Freon 11	150	-	CALIF. 1o MCL
Methylene chloride (dichloromethane)	5	B2	EPA 1o MCL
Phenol	21,000	D	DWEL[2]
Perchloroethylene (PCE) aka tetrachloroethylene	5	B2	EPA 1o MCL
Polychlorinated biphenyls (PCBs)	0.5	B2	EPA 1o MCL
Trichloroethylene (TCE)	5	B2	EPA 1o MCL

Chemical	Cleanup Standards	Weight of Evidence[1]	Basis
TPHd within 75 feet of surface waters	200	-	Best professional judgement based on aquatic toxicity
TPH-diesel more than 75 feet from surface waters	1,000	-	Best professional judgement based on health risk
1,1,1-Trichloroethane (TCA)	200	D	EPA 1° MCL
Toluene	1,000	D	EPA 1° MCL
Vinyl chloride	0.5	A	CALIF. 1° MCL
Xylenes	1,750	D	CALIF. 1° MCL

Notes:

1. Weight of Evidence, EPA's guidelines for carcinogen risk characterization.

   Group A - Human Carcinogen
   Group B - Probably Human Carcinogen
   Group C - Possible Human Carcinogen
   Group D - Not Classified as to Human Carcinogenicity
   Group E - Evidence of Noncarcinogenicity for Humans

2. Drinking water equivalent level using reference dose (RFD), assuming adult mass of 70 kg and water intake of 2 liters per day.

   DWEL (ppb) = RFD (ug/kg-day) x mass (kg) / Intake (l/day) = RFD x 35

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on May 21, 1997.

Loretta K. Barsamian
Executive Officer

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FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS ORDER MAY SUBJECT YOU TO ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO: IMPOSITION OF ADMINISTRATIVE CIVIL LIABILITY UNDER WATER CODE SECTIONS 13268 OR 13350, OR REFERRAL TO THE ATTORNEY GENERAL FOR INJUNCTIVE RELIEF OR CIVIL OR CRIMINAL LIABILITY

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